



# STIC Search Report

## Biotech-Chem Library

STIC Database Tracking Number: 159076

**TO: Laura Stockton**  
**Location: Rem 5 A 01, 5 C 18**  
**Art Unit: 1626**  
**Tuesday, July 12, 2005**

**Case Serial Number: 09/714351**

**From: Mary Jane Ruhl**  
**Location: Biotech-Chem Library**  
**Remsen 1-A-62**  
**Phone: 571-272-2524**

**maryjane.ruhl@uspto.gov**

### Search Notes

Examiner Stockton,

Here are the results for your recent search request.

Please feel free to contact me if you have any questions about these results.

Thank you for using STIC services. We appreciate the opportunity to serve you.

Sincerely,

Mary Jane Ruhl  
Technical Information Specialist  
STIC  
Remsen 1-A-62  
Ext. 22524



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U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark OfficeRUSH  
SEARCH REQUEST FORM

159073/159074

Examiner # (Mandatory):

72399

Requester's Full Name:

Laura L. Stakton

Art Unit

1626

Location (Bldg/Room#):

REM 5A01

Phone (circle 305 306 308)

571/272-0710

Serial Number:

09/714,351

Results Format Preferred (circle):

PAPER DISK E-MAIL

Title of Invention

SEE ATTACHED

Inventors (please provide full names):

SEE ATTACHED

Earliest Priority Date:

SEE ATTACHED

Keywords (include any known synonyms registry numbers, explanation of initialisms):

Atorvastatin Calcium Form V

RECEIVED  
JUL 12 2006  
(STIC)Afterfinal  
Search Topic:

Please write detailed statement of the search topic, and the concept of the invention. Describe as specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples of relevant citations, authors, etc., if known. You may include a copy of the abstract and the broadcast or most relevant claim(s).

Claims attached

## STAFF USE ONLY

Searcher: \_\_\_\_\_

Searcher Phone #: \_\_\_\_\_

Searcher Location: \_\_\_\_\_

Date Picked Up: \_\_\_\_\_

Date Completed: \_\_\_\_\_

Clerical Prep Time: \_\_\_\_\_

Terminal Time: \_\_\_\_\_

Number of Databases: \_\_\_\_\_

## Type of Search

\_\_\_\_\_ N.A. Sequence

\_\_\_\_\_ A.A. Sequence

\_\_\_\_\_ Structure (#)

\_\_\_\_\_ Bibliographic

\_\_\_\_\_ Litigation I

\_\_\_\_\_ Fulltext

\_\_\_\_\_ Procurement

\_\_\_\_\_ Other

## Vendors (include cost where applicable)

\_\_\_\_\_ STN

\_\_\_\_\_ Questel/Orbit

\_\_\_\_\_ Lexis/Nexis

\_\_\_\_\_ WWW/Internet

\_\_\_\_\_ In-house sequence systems (list)

\_\_\_\_\_ Dialog

\_\_\_\_\_ Dr. Link

\_\_\_\_\_ Westlaw

\_\_\_\_\_ Other (specify)

*Inventor Search*

Stockton 09/714,351

12/07/2005

=> d ibib abs ind l11 1-7

L11 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:428905 HCAPLUS

DOCUMENT NUMBER: 141:12256

TITLE: Novel crystal forms of **atorvastatin**  
hemi-calcium and processes for their preparation as  
well as novel processes for preparing other forms

INVENTOR(S): Tessler, Limor; **Aronhime, Judith**;  
Lifshitz-Liron, Revital; Maidan-Hanoch, Dalia; Hasson,  
Nir

PATENT ASSIGNEE(S): Teva Pharmaceutical Industries Ltd., Israel; Teva  
Pharmaceutical USA, Inc.

SOURCE: PCT Int. Appl., 73 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004043918	A2	20040527	WO 2003-US36428	20031112
WO 2004043918	A3	20040715		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
US 2003212279	A1	20031113	US 2003-370897	20030219
EP 1465865	A2	20041013	EP 2003-786723	20031112
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
PRIORITY APPLN. INFO.:			US 2002-425325P	P 20021112
			US 2003-370897	A 20030219
			US 2000-250072P	P 20001130
			US 2001-267897P	P 20010209
			US 2001-281872P	P 20010405
			US 2001-312144P	P 20010813
			US 2001-326529P	P 20011001
			US 2001-997126	A2 20011129
			WO 2003-US36428	W 20031112

AB The present invention provides novel forms of **atorvastatin** designated Forms VI, VII, VIII, IX, IXa, X, XI, XII, XIV, XVI and XVII and novel processes for their preparation as well as processes for preparing **atorvastatin** Forms I, II, IV, V and amorphous **atorvastatin**

IC ICM C07D207-34  
ICS A61K031-40; A61P003-06

CC 63-5 (Pharmaceuticals)  
Section cross-reference(s): 27

ST crystal structure **atorvastatin** hemi calcium butanolate LDL

IT Drug delivery systems  
(crystal form; novel crystal forms of **atorvastatin**)

hemi-calcium and processes for their preparation as well as novel processes for preparing other forms)

IT Crystal structure determination methods  
(electron diffractometric; novel crystal forms of **atorvastatin** hemi-calcium and processes for their preparation as well as novel processes for preparing other forms)

IT Lipoproteins  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(low-d., reducing level of; novel crystal forms of **atorvastatin** hemi-calcium and processes for their preparation as well as novel processes for preparing other forms)

IT Particle size distribution  
(narrow; novel crystal forms of **atorvastatin** hemi-calcium and processes for their preparation as well as novel processes for preparing other forms)

IT Isomorphism  
(novel crystal forms of **atorvastatin** hemi-calcium and processes for their preparation as well as novel processes for preparing other forms)

IT Crystal structure  
(of **atorvastatin** hemi-calcium; novel crystal forms of **atorvastatin** hemi-calcium and processes for their preparation as well as novel processes for preparing other forms)

IT 67-63-0, Isopropanol, reactions 110-54-3, n-Hexane, reactions 7732-18-5, Water, reactions  
RL: RGT (Reagent); RACT (Reactant or reagent)  
(as antisolvent; novel crystal forms of **atorvastatin** hemi-calcium and processes for their preparation as well as novel processes for preparing other forms)

IT 71-36-3, 1-Butanol, reactions  
RL: RGT (Reagent); RACT (Reactant or reagent)  
(as solvent; novel crystal forms of **atorvastatin** hemi-calcium and processes for their preparation as well as novel processes for preparing other forms)

IT 134523-03-8D, **Atorvastatin** hemi-calcium, butanolate  
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(novel crystal forms of **atorvastatin** hemi-calcium and processes for their preparation as well as novel processes for preparing other forms)

L11 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2003:892086 HCAPLUS  
DOCUMENT NUMBER: 139:369720  
TITLE: Preparation of crystal forms of **atorvastatin** hemi-calcium  
INVENTOR(S): Tessler, Limor; **Aronhime, Judith**; Lifshitz-Liron, Revital; Maidan-Hanoch, Dalia; Hasson, Nir  
PATENT ASSIGNEE(S): Israel  
SOURCE: U.S. Pat. Appl. Publ., 36 pp., Cont.-in-part of U.S. Ser. No. 997,126.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 6

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003212279	A1	20031113	US 2003-370897	20030219
US 2002183378	A1	20021205	US 2001-997126	20011129
ZA 2003003976	A	20041122	ZA 2003-3976	20011129
WO 2004043918	A2	20040527	WO 2003-US36428	20031112
WO 2004043918	A3	20040715		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1465865	A2	20041013	EP 2003-786723	20031112
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
LT 5196	B	20050225	LT 2004-18	20040213
US 2005004206	A1	20050106	US 2004-901845	20040728
US 2005090542	A1	20050428	US 2004-994142	20041119
PRIORITY APPLN. INFO.:				
			US 2000-250072P	P 20001130
			US 2001-267897P	P 20010209
			US 2001-281872P	P 20010405
			US 2001-312144P	P 20010813
			US 2001-326529P	P 20011001
			US 2001-997126	A2 20011129
			US 2002-425325P	P 20021112
			US 2003-370897	A 20030219
			WO 2003-US36428	W 20031112
AB	The present invention provides novel forms of <b>atorvastatin</b> hemi-calcium designated Forms VI, VII, VIII, IX, IXa, X, XI, XII, XIV, XVI and XVII and novel processes for their preparation, as well as processes for preparing <b>atorvastatin</b> hemi-calcium Forms I, II, IV, V and amorphous <b>atorvastatin</b> . A pharmaceutical composition comprising <b>atorvastatin</b> hemi-calcium selected from for reducing the plasma low-d. lipoprotein level of a patient suffering from or susceptible to hypercholesterolemia is also described.			
IC	ICM C07D027-34			
INCL	548537000			
CC	63-6 (Pharmaceuticals)			
	Section cross-reference(s): 27, 75			
ST	<b>atorvastatin</b> hemi calcium hydrate solvate prepn polymorphism			
IT	Drug delivery systems			
	Polymorphism (crystal)			
	(preparation of crystal forms of <b>atorvastatin</b> hemi-calcium)			
IT	Hypercholesterolemia			
	(treatment of; preparation of crystal forms of <b>atorvastatin</b> hemi-calcium)			
IT	<b>433289-84-0</b>			
	RL: OCU (Occurrence, unclassified); OCCU (Occurrence)			
	(preparation of crystal forms of <b>atorvastatin</b> hemi-calcium)			
IT	<b>134523-00-5P, Atorvastatin 134523-03-8P, Atorvastatin hemi-calcium 357164-38-6P, 586372-27-2P</b>			

RL: PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)  
(preparation of crystal forms of **atorvastatin** hemi-calcium)

IT 64-17-5, Ethanol, processes 67-56-1, Methanol, processes 67-63-0, Isopropyl alcohol, processes 67-64-1, Acetone, processes 71-23-8, 1-Propanol, processes 71-36-3, 1-Butanol, processes 78-93-3, Methyl ethyl ketone, processes 110-54-3, n-Hexane, processes 1634-04-4, MTBE 7732-18-5, Water, processes

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(preparation of crystal forms of **atorvastatin** hemi-calcium)

IT 1305-62-0, Calcium hydroxide (Ca(OH)<sub>2</sub>), reactions 134395-00-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of crystal forms of **atorvastatin** hemi-calcium)

L11 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:678785 HCAPLUS

DOCUMENT NUMBER: 139:202534

TITLE: Novel crystal forms of **atorvastatin** hemi-calcium and processes for their preparation, as well as novel processes for preparing **atorvastatin** hemi-calcium forms I, VIII and IX

INVENTOR(S): Tessler, Limor; Aronhime, Judith; Lifshitz-Liron, Revital; Maidan-Hanoch, Dalia; Hasson, Nir

PATENT ASSIGNEE(S): Teva Pharmaceutical Industries Ltd., Israel; Teva Pharmaceuticals USA, Inc.

SOURCE: PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003070702	A1	20030828	WO 2003-US5384	20030219
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2475864	AA	20030828	CA 2003-2475864	20030219
EP 1480950	A1	20041201	EP 2003-713610	20030219
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
JP 2005519076	T2	20050630	JP 2003-569609	20030219
PRIORITY APPLN. INFO.:			US 2002-357181P	P 20020215
			US 2002-425325P	P 20021112
			WO 2003-US5384	W 20030219

AB Solid crystalline **atorvastatin** hemi-calcium, and solvates, which are

characterized by a powder X-ray diffraction pattern having peaks at 9.3 and 9.5+0.2 degrees two-theta are prepared

IC ICM C07D207-327  
CC 63-6 (Pharmaceuticals)  
Section cross-reference(s): 26, 75  
ST crystal polymorphism **atorvastatin** hemi calcium  
IT Cooling  
Heating  
Suspensions  
(in the preparation of novel crystal forms of **atorvastatin** hemi-calcium)  
IT Lipoproteins  
RL: BSU (Biological study, unclassified); REM (Removal or disposal); BIOL (Biological study); PROC (Process)  
(low-d.; preparation of novel crystal forms of **atorvastatin** hemi-calcium for the lowering of serum)  
IT Anticholesteremic agents  
(novel crystal forms of **atorvastatin** hemi-calcium)  
IT Polymorphism (crystal)  
(novel crystal forms of **atorvastatin** hemi-calcium and processes for their preparation)  
IT Hypercholesterolemia  
(preparation of novel crystal forms of **atorvastatin** hemi-calcium for the treatment of)  
IT Separation  
(reflux; in the preparation of novel crystal forms of **atorvastatin** hemi-calcium)  
IT 134523-03-8, **Atorvastatin** hemi-calcium  
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(preparation of novel crystal forms of **atorvastatin** hemi-calcium)  
IT 67-63-0, Isopropanol, uses 67-64-1, Acetone, uses 71-23-8, 1-Propanol, uses 71-36-3, 1-Butanol, uses 109-99-9, Thf, uses 1634-04-4, Mtbe 7732-18-5, Water, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(solvent; in the preparation of novel crystal forms of **atorvastatin** hemi-calcium)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:678756 HCAPLUS

DOCUMENT NUMBER: 139:202593

TITLE: Processes for desolvating solvates of **atorvastatin** hemi-calcium and **atorvastatin** hemi-calcium essentially free of organic solvent

INVENTOR(S): Aronhime, Judith; Maidan-Hanoch, Dalia

PATENT ASSIGNEE(S): Teva Pharmaceutical Industries Ltd., Israel; Teva Pharmaceuticals USA, Inc.

SOURCE: PCT Int. Appl., 28 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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Searched by Mary Jane Ruhl Ext. 22524

Page 5

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WO 2003070665      A2      20030828      WO 2003-US5216      20030219
WO 2003070665      A3      20040212
W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
    CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
    GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
    LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
    PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,
    UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW:  GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
    KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
    FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF,
    BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
CA 2475123          AA      20030828      CA 2003-2475123      20030219
US 2003216584       A1      20031120      US 2003-370424      20030219
EP 1465901          A2      20041013      EP 2003-709217      20030219
R:   AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
    IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
PRIORITY APPLN. INFO.:      US 2002-358497P      P 20020219
                                WO 2003-US5216      W 20030219

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AB The present invention provides processes for removing organic solvent from crystals of **atorvastatin** hemi-calcium containing organic solvent. In one process, the organic solvent is displaced by vapor diffusion of water in a vessel maintained at elevated humidity. In a second process, the organic solvent is removed by fluidized bed drying. The present invention further provides **atorvastatin** hemi-calcium containing 1% or less organic solvent, which can be obtained from **atorvastatin** hemi-calcium that has been crystallized from an organic solvent-containing solution by practice of the

processes of the invention.

IC ICM C07B

CC 63-8 (Pharmaceuticals)

ST **atorvastatin** hemi calcium solvate desolvation polymorphism

IT Alcohols, processes

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(C1-6; process for removal of organic solvent from **atorvastatin** hemi-calcium solvate)

IT Sulfoxides

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(alkyl; process for removal of organic solvent from **atorvastatin** hemi-calcium solvate)

IT Amides, processes

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(diamides; process for removal of organic solvent from **atorvastatin** hemi-calcium solvate)

IT Desolvation

Polymorphism (crystal)

(process for removal of organic solvent from **atorvastatin** hemi-calcium solvate)

IT Ethers, processes

Ketones, processes

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(process for removal of organic solvent from **atorvastatin** hemi-calcium solvate)

IT 9028-35-7, HMG-CoA reductase



RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitors; process for removal of organic solvent from  
**atorvastatin** hemi-calcium solvate)

IT 60-29-7, Diethyl ether, processes 64-17-5, Ethanol,  
 processes 67-56-1, Methanol, processes 67-63-0,  
 2-Propanol, processes 67-64-1, Acetone, processes  
 67-68-5, Dimethylsulfoxide, processes 68-12-2,  
 N,N-Dimethylformamide, processes 71-23-8, 1-Propanol, processes  
 71-36-3, 1-Butanol, processes 78-83-1,  
 2-Methyl-1-propanol, processes 78-93-3, Butanone, processes  
 127-19-5, N,N-Dimethylacetamide 1634-04-4, Methyl  
 tert-butyl ether 586372-26-1 586372-27-2

RL: PEP (Physical, engineering or chemical process); PYP (Physical  
 process); PROC (Process)  
 (process for removal of organic solvent from **atorvastatin**  
 hemi-calcium solvate)

IT 134523-03-8P, **Atorvastatin** hemi-calcium  
 344423-98-9P, **Atorvastatin** hemi-calcium trihydrate  
 RL: PNU (Preparation, unclassified); PRP (Properties); THU (Therapeutic  
 use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (process for removal of organic solvent from **atorvastatin**  
 hemi-calcium solvate)

L11 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:428715 HCAPLUS

DOCUMENT NUMBER: 137:10960

TITLE: Novel crystal forms of **atorvastatin**  
 hemicalcium and processes for their preparation as  
 well as novel processes for preparing other forms

INVENTOR(S): **Aronhime, Judith**; Lidor-Hadas, Ramy;  
**Niddam, Valerie**; **Lifshitz, Revital**;  
 Ishai, Eti; Sambursky, Guy

PATENT ASSIGNEE(S): Teva Pharmaceutical Industries Ltd., Israel; Teva  
 Pharmaceuticals USA, Inc.

SOURCE: PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 6

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002043732	A1	20020606	WO 2001-US44636	20011129
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2429590	AA	20020606	CA 2001-2429590	20011129
AU 2002017927	A5	20020611	AU 2002-17927	20011129
BR 2001015892	A	20031028	BR 2001-15892	20011129
EP 1363621	A1	20031126	EP 2001-998348	20011129
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			

JP 2004514694	T2	20040520	JP 2002-545702	20011129
TR 200400815	T3	20040721	TR 2004-200400815	20011129
ZA 2003003976	A	20041122	ZA 2003-3976	20011129
NO 2003002425	A	20030725	NO 2003-2425	20030528
BG 107856	A	20041130	BG 2003-107856	20030529
LT 5196	B	20050225	LT 2004-18	20040213

PRIORITY APPLN. INFO.:

US 2000-250072P	P	20001130
US 2001-267897P	P	20010209
US 2001-281872P	P	20010405
US 2001-312144P	P	20010813
US 2001-326529P	P	20011001
WO 2001-US44636	W	20011129

- AB The present invention provides novel forms of **atorvastatin** designated Forms VI, VIII, IX, X, XI and XII and novel processes for their preparation as well as processes for preparing **atorvastatin** Forms, I, II, IV, V and amorphous **atorvastatin**. For example, 1.0 g (1.59x10<sup>-3</sup> mole) of [R-(R\*,R\*)]-2-(4-fluorophenyl)- $\beta$ ,8-dioxane-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-tert-butylheptanoic ester was suspended in a 90% aqueous solution of acetic acid (10 mL) and heated to 50°. The solvent was evaporated and the traces of acetic acid were removed by azeotropic distillation with toluene to obtain an oil with some toluene. This oil was dissolved in EtOH (10 mL) and water (2 mL) and then 5.5 equiv (8.4x10<sup>-3</sup> mole, 622 mg) of Ca(OH)<sub>2</sub> and tetra-Bu ammonium bromide (5%) were added. The reaction mixture was heated at 50° until the reaction was complete. Then a hot filtration was done under vacuum to remove the excess of Ca(OH)<sub>2</sub> and the reaction mixture was cooled to room temperature. To this solution water (50 mL) was added while stirring. The white precipitate was stirred at room temperature overnight, filtered under vacuum and dried at 65° to give 145 mg (16%) of **atorvastatin** hemicalcium salt Form VIII.
- IC ICM A61K031-40  
ICS C07D207-34
- CC 63-5 (Pharmaceuticals)  
Section cross-reference(s): 27
- ST **atorvastatin** hemicalcium polymorphism crystal form prepn
- IT Solvents  
(antisolvents; preparation of crystal forms of **atorvastatin** hemicalcium and its hydrate and solvates)
- IT Ball milling  
Crystal morphology  
Crystallization  
Particle size distribution  
Polymorphism (crystal)  
Powder x-ray diffractometry  
Solubilization  
Sonication  
(preparation of crystal forms of **atorvastatin** hemicalcium and its hydrate and solvates)
- IT Humidity  
(relative; preparation of crystal forms of **atorvastatin** hemicalcium and its hydrate and solvates)
- IT Magnetic resonance  
(13C; preparation of crystal forms of **atorvastatin** hemicalcium and its hydrate and solvates)
- IT 134523-00-5P, **Atorvastatin**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(amorphous; preparation of crystal forms of **atorvastatin** hemicalcium and its hydrate and solvates)

IT 433289-83-9P  
RL: BYP (Byproduct); PREP (Preparation)  
(preparation of crystal forms of **atorvastatin** hemicalcium and its hydrate and solvates)

IT 67-56-1, Methanol, uses 67-63-0, Isopropanol, uses 67-64-1, Acetone, uses 75-05-8, Acetonitrile, uses 78-93-3, Methyl ethyl ketone, uses 110-54-3, n-Hexane, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(preparation of crystal forms of **atorvastatin** hemicalcium and its hydrate and solvates)

IT 64-17-5, Ethanol, reactions 71-36-3, 1-Butanol, reactions 7732-18-5, Water, reactions  
RL: NUU (Other use, unclassified); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)  
(preparation of crystal forms of **atorvastatin** hemicalcium and its hydrate and solvates)

IT 433289-84-0  
RL: OCU (Occurrence, unclassified); OCCU (Occurrence)  
(preparation of crystal forms of **atorvastatin** hemicalcium and its hydrate and solvates)

IT 134523-03-8P, **Atorvastatin** hemicalcium  
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(preparation of crystal forms of **atorvastatin** hemicalcium and its hydrate and solvates)

IT 344423-98-9P, **Atorvastatin** hemicalcium trihydrate  
433289-80-6P 433289-81-7P  
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of crystal forms of **atorvastatin** hemicalcium and its hydrate and solvates)

IT 1305-62-0, Calcium hydroxide, reactions 433289-82-8  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of crystal forms of **atorvastatin** hemicalcium and its hydrate and solvates)

IT 125995-03-1P, **Atorvastatin** lactone 134395-00-9P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of crystal forms of **atorvastatin** hemicalcium and its hydrate and solvates)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2002:428654 HCAPLUS  
DOCUMENT NUMBER: 137:6032  
TITLE: Hydrolysis of [R-(R\*,R\*)]-2-(4-fluorophenyl)-  
 $\beta$ , $\delta$ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-  
[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid  
acid esters with calcium hydroxide  
INVENTOR(S): Lidor-Hadas, Ramy; Lifshitz, Revital; Ishai,  
Eti; Niddam, Valerie  
PATENT ASSIGNEE(S): Teva Pharmaceutical Industries Ltd., Israel; Teva  
Pharmaceutical USA, Inc.  
SOURCE: PCT Int. Appl., 26 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent

LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 6  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002043667	A2	20020606	WO 2001-US50639	20011024
WO 2002043667	A3	20021010		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2427255	AA	20020606	CA 2001-2427255	20011024
AU 2002032891	A5	20020611	AU 2002-32891	20011024
EP 1341785	A2	20030910	EP 2001-992422	20011024
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004514687	T2	20040520	JP 2002-545646	20011024
ZA 2003003974	A	20040823	ZA 2003-3974	20011024
NZ 526022	A	20050429	NZ 2001-526022	20011024
NO 2003002200	A	20030624	NO 2003-2200	20030515

PRIORITY APPLN. INFO.:  
 US 2000-249319P P 20001116  
 US 2001-312144P P 20010813  
 US 2001-326529P P 20011001  
 WO 2001-US50639 W 20011024

OTHER SOURCE(S): CASREACT 137:6032; MARPAT 137:6032

AB The present invention provides a process for preparing **atorvastatin** hemi-calcium from an **atorvastatin** ester derivative with calcium hydroxide. The process is conveniently incorporated into a process for preparing **atorvastatin** hemi-calcium from an acetonide protected, ester protected  $\beta$ , $\delta$ -dihydroxy heptanoic acid precursor compound by a first acid hydrolysis step followed by base hydrolysis with calcium hydroxide. The latter process may be performed as a one-pot process. Thus, (4R,6R)-6-[2-[2-(4-fluorophenyl)-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrol-1-yl]ethyl]-2,2-dimethyl-1,3-dioxane-4-acetic acid 1,1-dimethylethyl ester was treated with aqueous acetic acid to give **atorvastatin** tert-Bu ester, **atorvastatin** free acid and **atorvastatin** lactone which were subsequently treated with a saturated solution of calcium hydroxide containing tetrabutylammonium bromide to give the desired **atorvastatin** hemi-calcium in 77% yield.

IC ICM A61K

CC 26-6 (Biomolecules and Their Synthetic Analogs)

ST **atorvastatin** hemi calcium prepn hydrolysis

IT Hydrolysis

(base; process for the preparation of **atorvastatin** hemi-calcium via hydrolysis of [R-(R\*,R\*)]-2-(4-fluorophenyl)- $\beta$ , $\delta$ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid esters with calcium hydroxide)

IT Polyoxyalkylenes, reactions

RL: RGT (Reagent); RACT (Reactant or reagent)

(process for the preparation of **atorvastatin** hemi-calcium via hydrolysis of [R-(R\*,R\*)]-2-(4-fluorophenyl)- $\beta$ , $\delta$ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-

- heptanoic acid esters with calcium hydroxide)
- IT **7647-01-0**, Hydrochloric acid, uses  
RL: CAT (Catalyst use); USES (Uses)  
(process for the preparation of **atorvastatin** hemi-calcium via hydrolysis of [R-(R\*,R\*)]-2-(4-fluorophenyl)- $\beta$ , $\delta$ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid esters with calcium hydroxide)
- IT **125995-03-1P**, **Atorvastatin** lactone **134523-00-5P**, **Atorvastatin**  
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(process for the preparation of **atorvastatin** hemi-calcium via hydrolysis of [R-(R\*,R\*)]-2-(4-fluorophenyl)- $\beta$ , $\delta$ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid esters with calcium hydroxide)
- IT **134523-03-8P**, **Atorvastatin** hemi-calcium  
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)  
(process for the preparation of **atorvastatin** hemi-calcium via hydrolysis of [R-(R\*,R\*)]-2-(4-fluorophenyl)- $\beta$ , $\delta$ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid esters with calcium hydroxide)
- IT **125971-95-1**  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(process for the preparation of **atorvastatin** hemi-calcium via hydrolysis of [R-(R\*,R\*)]-2-(4-fluorophenyl)- $\beta$ , $\delta$ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid esters with calcium hydroxide)
- IT **134395-00-9P**  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(process for the preparation of **atorvastatin** hemi-calcium via hydrolysis of [R-(R\*,R\*)]-2-(4-fluorophenyl)- $\beta$ , $\delta$ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid esters with calcium hydroxide)
- IT **56-34-8**, Tetraethylammonium chloride **56-37-1**, Benzyltriethylammonium chloride **75-57-0**, Tetramethylammonium chloride **311-28-4**, Tetrabutylammonium iodide **1112-67-0**, Tetrabutylammonium chloride **1305-62-0**, Calcium hydroxide, reactions **1643-19-2**, Tetrabutylammonium bromide **5197-95-5**, Benzyltriethylammonium bromide **23616-79-7**, Benzyltributylammonium chloride **25316-59-0**, Benzyltributylammonium bromide **25322-68-3**, Polyethylene glycol  
RL: RGT (Reagent); RACT (Reactant or reagent)  
(process for the preparation of **atorvastatin** hemi-calcium via hydrolysis of [R-(R\*,R\*)]-2-(4-fluorophenyl)- $\beta$ , $\delta$ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid esters with calcium hydroxide)

L11 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:380554 HCAPLUS

DOCUMENT NUMBER: 134:366739

TITLE: Polymorphic crystal form of **atorvastatin** calcium

INVENTOR(S): **Ayalon, Ari; Levinger, Michael; Roytblat, Sofia; Niddam, Valerie; Lifshitz, Revital**

PATENT ASSIGNEE(S): Teva Pharmaceutical Industries Ltd., Israel; Teva Pharmaceuticals USA, Inc.

SOURCE: PCT Int. Appl., 22 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001036384	A1	20010525	WO 2000-US31555	20001116
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2392096	AA	20010525	CA 2000-2392096	20001116
EP 1235799	A1	20020904	EP 2000-978744	20001116
EP 1235799	B1	20050209		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003514798	T2	20030422	JP 2001-538875	20001116
AT 288893	E	20050215	AT 2000-978744	20001116
EP 1535613	A2	20050601	EP 2004-27375	20001116
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, CY, TR				
ZA 2002003755	A	20040308	ZA 2002-3755	20020510
PRIORITY APPLN. INFO.:				
			US 1999-166153P	P 19991117
			EP 2000-978744	A3 20001116
			WO 2000-US31555	W 20001116

AB A new crystal form of **atorvastatin** calcium, designated Form V, useful for lowering serum cholesterol levels (no data), is prepared and characterized.

IC ICM C07D207-335  
ICS A61K031-40

CC 26-6 (Biomolecules and Their Synthetic Analogs)  
Section cross-reference(s): 75

ST **atorvastatin** calcium crystal polymorphism

IT Polymorphism (crystal)  
(polymorphic crystal form of **atorvastatin** calcium)

IT **134523-01-6, Atorvastatin** sodium  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(134523005; preparation of a new polymorphic crystal form of **atorvastatin** calcium)

IT **340266-37-7, Atorvastatin** ammonium salt  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(in the preparation of a new polymorphic crystal form of **atorvastatin** calcium)

IT **134523-03-8P, Atorvastatin** calcium  
RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(polymorphic crystal form; preparation of a new polymorphic crystal form of **atorvastatin** calcium)

IT **62-54-4, Calcium** acetate  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of a new polymorphic crystal form of **atorvastatin**)

calcium)  
IT 64-17-5, Ethanol, uses 67-56-1, Methanol, uses  
109-99-9, Thf, uses  
RL: NUU (Other use, unclassified); REM (Removal or disposal); PROC  
(Process); USES (Uses)  
(solvent; in the preparation of a new polymorphic crystal form of  
**atorvastatin** calcium)  
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his ful

FILE 'REGISTRY' ENTERED AT 16:54:28 ON 12 JUL 2005

E ATORVASTATIN CALCIUM/CN

L1 2 SEA ABB=ON ("ATORVASTATIN CALCIUM"/CN OR "ATORVASTATIN  
HEMICALCIUM"/CN OR "ATORVASTATIN HEMICALCIUM SALT"/CN OR  
"ATORVASTATIN HEMICALCIUM TRIHYDRATE"/CN)

FILE 'CASREACT' ENTERED AT 16:55:01 ON 12 JUL 2005

L2 6 SEA ABB=ON L1

L3 5 SEA ABB=ON L2 AND ?FORM?

L4 3 SEA ABB=ON L2 AND FORM

*3 cits from CASreact*

FILE 'HCAPLUS' ENTERED AT 16:56:59 ON 12 JUL 2005

L5 225 SEA ABB=ON L1 OR ?ATORVASTATIN?(W) (?CALCIUM? OR CA)

L6 2 SEA ABB=ON L5 AND ?FORM?(W) V

*2 cits from CAPLUS*

FILE 'MEDLINE, USPATFULL, BIOSIS, EMBASE, JAPIO, JICST-EPLUS' ENTERED AT  
16:58:14 ON 12 JUL 2005

L7 65 SEA ABB=ON L6

L8 65 DUP REMOV L7 (0 DUPLICATES REMOVED)

L9 19 SEA ABB=ON L8 AND ?POLYMORPH?

L10 19 SEA ABB=ON L9 AND (?PRODUC? OR ?SYNTH? OR ?PROCESS?)

L11 19 SEA ABB=ON L9 AND ((?XRAY? OR X(W) RAY) (3A) ?DIFFRACT? OR  
?SOLID?(W) ?STATE?(W) 13C(W) NMR OR NMR OR ?WATER? OR ?PHARM?)

*19 cits from above d.b.'s*

FILE 'HCAPLUS' ENTERED AT 17:08:09 ON 12 JUL 2005

→ SAV L5 STO351L5/A

*L5 saved, should you want to see  
additional cits.*

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 11 JUL 2005 HIGHEST RN 854584-06-8

DICTIONARY FILE UPDATES: 11 JUL 2005 HIGHEST RN 854584-06-8

FILE CASREACT

FILE CONTENT:1840 - 10 Jul 2005 VOL 143 ISS 2

Some CASREACT records are derived from the ZIC/VINITI database (1974-1991)  
provided by InfoChem, INPI data prior to 1986, and Biotransformations  
database compiled under the direction of Professor Dr. Klaus Kieslich.

FILE HCAPLUS

FILE COVERS 1907 - 12 Jul 2005 VOL 143 ISS 3

FILE LAST UPDATED: 11 Jul 2005 (20050711/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate  
substance identification.

FILE MEDLINE

FILE LAST UPDATED: 9 JUL 2005 (20050709/UP). FILE COVERS 1950 TO DATE.

On December 19, 2004, the 2005 MeSH terms were loaded.

OLDMEDLINE now back to 1950.



MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2005 vocabulary.

## FILE USPATFULL

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 12 Jul 2005 (20050712/PD)

FILE LAST UPDATED: 12 Jul 2005 (20050712/ED)

HIGHEST GRANTED PATENT NUMBER: US6918136

HIGHEST APPLICATION PUBLICATION NUMBER: US2005150027

CA INDEXING IS CURRENT THROUGH 12 Jul 2005 (20050712/UPCA)

ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 12 Jul 2005 (20050712/PD)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Jun 2005

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Jun 2005

## FILE BIOSIS

FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT  
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 8 July 2005 (20050708/ED)

FILE RELOADED: 19 October 2003.

## FILE EMBASE

FILE COVERS 1974 TO 7 Jul 2005 (20050707/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

## FILE JAPIO

FILE LAST UPDATED: 4 JUL 2005 <20050704/UP>

FILE COVERS APR 1973 TO MARCH 31, 2005

## FILE JICST-EPLUS

FILE COVERS 1985 TO 11 JUL 2005 (20050711/ED)

THE JICST-EPLUS FILE HAS BEEN RELOADED TO REFLECT THE 1999 CONTROLLED  
TERM (/CT) THESAURUS RELOAD.

=> log hold

COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
2.45	153.12

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
0.00	-8.94

CA SUBSCRIBER PRICE

SESSION WILL BE HELD FOR 60 MINUTES

STN INTERNATIONAL SESSION SUSPENDED AT 17:08:48 ON 12 JUL 2005

=> d que stat 14

L1 2 SEA FILE=REGISTRY ABB=ON ("ATORVASTATIN CALCIUM"/CN OR  
"ATORVASTATIN HEMICALCIUM"/CN OR "ATORVASTATIN HEMICALCIUM  
SALT"/CN OR "ATORVASTATIN HEMICALCIUM TRIHYDRATE"/CN)  
L2 6 SEA FILE=CASREACT ABB=ON L1  
L4 3 SEA FILE=CASREACT ABB=ON L2 AND FORM

=> d ibib abs 14 1-3

L4 ANSWER 1 OF 3 CASREACT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 142:134382 CASREACT

TITLE: Process for the preparation of amorphous atorvastatin  
calcium without interconversion of any crystalline  
**form**

INVENTOR(S): Dabak, Kadir; Keskin, Hulya

PATENT ASSIGNEE(S): Eos Eczacibasi Ozgun Kimyasal Urunler Sanyi Ve Ticaret  
A.S., Turk.

SOURCE: PCT Int. Appl., 10 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005005384	A1	20050120	WO 2003-TR62	20030715

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,  
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,  
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,  
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,  
UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,  
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: WO 2003-TR62 20030715

AB The invention relates to a novel process for the preparation of amorphous  
atorvastatin calcium salt (2:1) from atorvastatin tert-Bu ester. The  
preparation comprises: (a) dissolving atorvastatin tert-Bu ester in a solvent,  
(b) adding an aqueous alkaline or alkaline earth metal hydroxide solution, (c)  
removing

of the solvent, (b) adding water and a water non soluble solvent, (e) adding  
an aqueous calcium salt solution, (f) separation of the phases and removing of  
the

solvent to obtain desired amorphous atorvastatin calcium and hydrates  
thereof. The process disclosed herein gives amorphous **form**  
directly without interconversion of any crystalline **form** into  
amorphous **form**.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 3 CASREACT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 137:125046 CASREACT

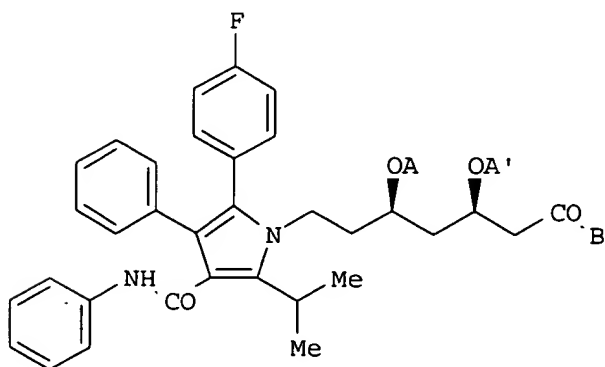
TITLE: Process for the preparation of non-crystalline  
atorvastatin calcium

INVENTOR(S): Sorsak, Gorazd

PATENT ASSIGNEE(S): LEK Pharmaceutical and Chemical Company D.D., Slovenia  
SOURCE: PCT Int. Appl., 23 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002059087	A1	20020801	WO 2002-IB161	20020122
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
SI 20814	C	20020831	SI 2001-10	20010123
CA 2435954	AA	20020801	CA 2002-2435954	20020122
EE 200300333	A	20031015	EE 2003-333	20020122
EP 1373202	A1	20040102	EP 2002-734878	20020122
EP 1373202	B1	20050427		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
BR 2002006637	A	20040803	BR 2002-6637	20020122
JP 2005503997	T2	20050210	JP 2002-559389	20020122
AT 294159	E	20050515	AT 2002-734878	20020122
US 2003109569	A1	20030612	US 2002-323444	20021218
US 6750353	B2	20040615		
ZA 2003005307	A	20040709	ZA 2003-5307	20030709
BG 108017	A	20040831	BG 2003-108017	20030722
US 2004072895	A1	20040415	US 2003-677344	20031003
PRIORITY APPLN. INFO.:				
			SI 2001-10	20010123
			WO 2002-IB161	20020122
			US 2002-323444	20021218

OTHER SOURCE(S): MARPAT 137:125046  
GI



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AB A process was described for the preparation of non-crystalline atorvastatin calcium,

a known HMG-CoA reductase inhibitor used as an antihypercholesterolemic agent. Atorvastatin is usually prepared as its calcium salt since it enable atorvastatin to be conveniently formulated in the pharmaceutical formulations, for example, in tablets, capsules, powders and the like for oral administration. Atorvastatin calcium can exist in an amorphous **form** or in one of the crystalline forms. Atorvastatin calcium is the substance which is very slightly water-soluble, and it has been found that the crystalline forms are less readily soluble than the amorphous **form** which may cause problems in the bioavailability of atorvastatin in the body. The present invention relates to a novel process for converting the atorvastatin intermediates I (A, A' = hydroxyl protecting groups; AA' = single dihydroxy protecting group; B = carboxyl protecting group) or atorvastatin lactose into the non-crystalline atorvastatin calcium. Thus, I (AA' = CMe<sub>2</sub>, B = OCMe<sub>3</sub>) in THF and a 10% HCl solution were stirred at rt for 15 h followed by addn of solid NaOH and stirred for an addnl. 30 h. The resulting solution was evaporated by vacuum, the phases separated with the aqueous phase

being rapidly agitated and treated with 5M HCl to adjust the pH to 7.0-7.5. The agitated pH adjusted aqueous phase was then treated with Ca(OAc)<sub>2</sub> in H<sub>2</sub>O to give the desired non-crystalline atorvastatin calcium.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 3 CASREACT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 126:212037 CASREACT

TITLE: Preparation of crystalline [R-(R\*,R\*)]-2-(4-fluorophenyl)-β,8-dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid hemi calcium salt (atorvastatin)

INVENTOR(S): Briggs, Christopher A.; Jennings, Rex Allen; Wade, Robert A.; Harasawa, Kikuko; Ichikawa, Shigeru; Minohara, Kazuo; Nakagawa, Shinsuke

PATENT ASSIGNEE(S): Warner-Lambert Company, USA

SOURCE: PCT Int. Appl., 49 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9703959	A1	19970206	WO 1996-US11368	19960708
W: AU, BG, BR, CA, CN, CZ, EE, GE, HU, IL, JP, KR, LT, LV, MX, NO, NZ, PL, RO, SG, SI, SK, UA, US, UZ, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2220018	AA	19970206	CA 1996-2220018	19960708
CA 2220018	C	20010417		
AU 9664842	A1	19970218	AU 1996-64842	19960708
AU 725424	B2	20001012		
EP 848705	A1	19980624	EP 1996-924368	19960708
EP 848705	B1	20011107		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
CN 1190955	A	19980819	CN 1996-195564	19960708
CN 1087288	B	20020710		
BR 9609872	A	19990323	BR 1996-9872	19960708

IL 122118	A1	19990714	IL 1996-122118	19960708
JP 11509230	T2	19990817	JP 1997-506710	19960708
JP 3296564	B2	20020702		
NZ 312907	A	20001222	NZ 1996-312907	19960708
NZ 507836	A	20010223	NZ 1996-507836	19960708
EP 1148049	A1	20011024	EP 2001-116338	19960708
EP 1148049	B1	20041215		

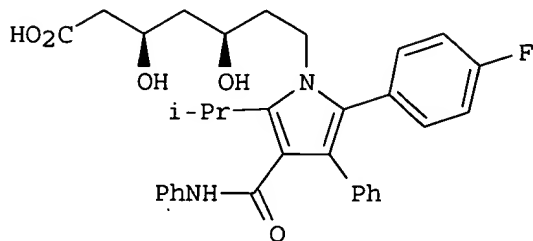
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI

AT 208375	E	20011115	AT 1996-924368	19960708
EE 3606	B1	20020215	EE 1998-15	19960708
ES 2167587	T3	20020516	ES 1996-924368	19960708
JP 2003073353	A2	20030312	JP 2002-8746	19960708
SK 284202	B6	20041005	SK 1998-62	19960708
CZ 294108	B6	20041013	CZ 1998-121	19960708
AT 284868	E	20050115	AT 2001-116338	19960708
CZ 294695	B6	20050216	CZ 2004-631	19960708
CZ 294740	B6	20050316	CZ 2004-630	19960708
ZA 9606044	A	19970203	ZA 1996-6044	19960716
HR 960339	B1	20020630	HR 1996-960339	19960716
TW 486467	B	20020511	TW 1996-85109893	19960814
US 5969156	A	19991019	US 1997-945812	19970929
BG 63630	B1	20020731	BG 1998-102187	19980114
NO 9800207	A	19980116	NO 1998-207	19980116
NO 309898	B1	20010417		
HK 1018052	A1	20021101	HK 1998-113380	19981215

PRIORITY APPLN. INFO.:

US 1995-1452P	19950717
EP 1996-924368	19960708
JP 1997-506710	19960708
WO 1996-US11368	19960708

GI



I

AB Novel crystalline forms of [R-(R\*,R\*)]-2-(4-fluorophenyl)- $\beta$ , $\delta$ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid hemi calcium salt I.1/2Ca designated **Form I**, **Form II**, and **Form IV**, useful as agents for treating hyperlipidemia and hypercholesterolemia, were prepared and characterized by their X-ray powder diffraction and/or solid state NMR. Thus, treatment of (2R-trans)-5-(4-fluorophenyl)-2-(1-methylethyl)-N,4-diphenyl-1-[2-(tetrahydro-4-hydroxy-6-oxo-2H-pyran-2-yl)ethyl]-1H-pyrrole-3-carboxamide with NaOH in H<sub>2</sub>O/MeOH/MTBE (Me tert-Bu ether) followed by addition of aqueous solution of Ca(OAc)<sub>2</sub> to the MTBE saturated aqueous solution of atorvastatin sodium salt afforded I.1/2Ca. Compound I is effective at 2.5-20 mg/day.

Stockton 09/714,351

12/07/2005

=&gt; d que stat 16

L1 2 SEA FILE=REGISTRY ABB=ON ("ATORVASTATIN CALCIUM"/CN OR  
 "ATORVASTATIN HEMICALCIUM"/CN OR "ATORVASTATIN HEMICALCIUM  
 SALT"/CN OR "ATORVASTATIN HEMICALCIUM TRIHYDRATE"/CN)  
 L5 225 SEA FILE=HCAPLUS ABB=ON L1 OR ?ATORVASTATIN?(W) (?CALCIUM? OR  
 CA)  
 L6 2 SEA FILE=HCAPLUS ABB=ON L5 AND ?FORM?(W) V

=&gt; d ibib abs 16 1-2

L6 ANSWER 1 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:555460 HCAPLUS

DOCUMENT NUMBER: 137:114535

TITLE: **Form V** crystalline  
 [R(R\*,R\*)]-2-(4-fluorophenyl)- $\beta$ , $\delta$ -dihydroxy-  
 5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-  
 1H-pyrrole-1-heptanoic acid hemicalcium salt.  
 (atorvastatin)

INVENTOR(S): Mathew, Joy; Ganesh, Sambasivam

PATENT ASSIGNEE(S): Biocon India Limited, India

SOURCE: PCT Int. Appl., 25 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002057229	A1	20020725	WO 2001-IN6	20010119
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2436122	AA	20020725	CA 2001-2436122	20010614
WO 2002057274	A1	20020725	WO 2001-IN114	20010614
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
EP 1351963	A1	20031015	EP 2001-955503	20010614
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
BR 2001016785	A	20040309	BR 2001-16785	20010614
JP 2004517900	T2	20040617	JP 2002-557951	20010614
US 2004072893	A1	20040415	US 2003-466802	20030716
US 6867306	B2	20050315		
PRIORITY APPLN. INFO.:			WO 2001-IN6	A 20010119
			WO 2001-IN114	W 20010614



AB A novel crystalline form of **atorvastatin hemicalcium** salt designated as **Form V** is characterized by its X-ray powder diffraction and/or solid state NMR is described, as well as methods for the preparation which is useful as an agent for treating hyperlipidemia and hypercholesterolemia.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 2 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:380554 HCAPLUS

DOCUMENT NUMBER: 134:366739

TITLE: Polymorphic crystal form of **atorvastatin calcium**

INVENTOR(S): Ayalon, Ari; Levinger, Michael; Roytblat, Sofia; Niddam, Valerie; Lifshitz, Revital

PATENT ASSIGNEE(S): Teva Pharmaceutical Industries Ltd., Israel; Teva Pharmaceuticals USA, Inc.

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001036384	A1	20010525	WO 2000-US31555	20001116
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2392096	AA	20010525	CA 2000-2392096	20001116
EP 1235799	A1	20020904	EP 2000-978744	20001116
EP 1235799	B1	20050209		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2003514798	T2	20030422	JP 2001-538875	20001116
AT 288893	E	20050215	AT 2000-978744	20001116
EP 1535613	A2	20050601	EP 2004-27375	20001116
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, CY, TR				
ZA 2002003755	A	20040308	ZA 2002-3755	20020510
PRIORITY APPLN. INFO.:			US 1999-166153P	P 19991117
			EP 2000-978744	A3 20001116
			WO 2000-US31555	W 20001116

AB A new crystal form of **atorvastatin calcium**, designated **Form V**, useful for lowering serum cholesterol levels (no data), is prepared and characterized.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d que stat l11

L1 2 SEA FILE=REGISTRY ABB=ON ("ATORVASTATIN CALCIUM"/CN OR  
"ATORVASTATIN HEMICALCIUM"/CN OR "ATORVASTATIN HEMICALCIUM  
SALT"/CN OR "ATORVASTATIN HEMICALCIUM TRIHYDRATE"/CN)  
L5 225 SEA FILE=HCAPLUS ABB=ON L1 OR ?ATORVASTATIN?(W) (?CALCIUM? OR  
CA)  
L6 2 SEA FILE=HCAPLUS ABB=ON L5 AND ?FORM?(W) V  
L7 65 SEA L6  
L8 65 DUP REMOV L7 (0 DUPLICATES REMOVED)  
L9 19 SEA L8 AND ?POLYMORPH?  
L11 19 SEA L9 AND ((?XRAY? OR X(W) RAY) (3A) ?DIFFRACT? OR ?SOLID?(W)  
?STATE?(W) 13C(W) NMR OR NMR OR ?WATER? OR ?PHARM?)

=> d ibib abs l11 1-19

L11 ANSWER 1 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2005:123854 USPATFULL

TITLE: Process for the preparation of free-flowing, pulverized  
atorvastatin adsorbates

INVENTOR(S): Doser, Karl-Heinz, Buchholz l. d. Nordheide, GERMANY,  
FEDERAL REPUBLIC OF  
Glaenger, Klaus, Hamburg, GERMANY, FEDERAL REPUBLIC OF  
Waldruff, Robert, Memmingen, GERMANY, FEDERAL REPUBLIC  
OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005106243	A1	20050519
APPLICATION INFO.:	US 2004-990723	A1	20041116 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	EP 2003-26546	20031118
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	J C PATENTS, INC., 4 VENTURE, SUITE 250, IRVINE, CA, 92618, US	
NUMBER OF CLAIMS:	26	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	11 Drawing Page(s)	
LINE COUNT:	696	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a method for the preparation of atorvastatin  
adsorbates and solvates thereof, wherein one starts from a solution  
comprising the **pharmaceutical** active **pharmaceutical**  
ingredient substantially dissolved therein, one suspenses an adsorber  
material therein selected from the group of the celluloses, cellulose  
derivatives, polyols, sugars, sugar derivatives, maltodextrins,  
cyclodextrins, starches, polydextroses or mixtures thereof, and one  
removes the solvent by drying. Also, the invention relates to  
atorvastatin adsorbates obtainable according to this method as well as  
**pharmaceutical** formulations comprising them.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 2 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2005:105604 USPATFULL

TITLE: Novel crystal forms of atorvastatin hemi-calcium and  
processes for their preparation as well as novel

INVENTOR(S) : processes for preparing other forms  
Aronhime, Judith, Rehovot, ISRAEL  
Lidor-Hadas, Ramy, Kfar Saba, ISRAEL  
Niddam, Valerie, Even-Yeouda, ISRAEL  
Lifshitz, Revital, Herzlia, ISRAEL  
Wizel, Shlomit, Petah Tiqva, ISRAEL

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005090542	A1	20050428
APPLICATION INFO.:	US 2004-994142	A1	20041119 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2001-997126, filed on 29 Nov 2001, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-250072P	20001130 (60)
	US 2001-267897P	20010209 (60)
	US 2001-281872P	20010405 (60)
	US 2001-312144P	20010813 (60)
	US 2001-326529P	20011001 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	KENYON & KENYON, ONE BROADWAY, NEW YORK, NY, 10004, US	
NUMBER OF CLAIMS:	105	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	13 Drawing Page(s)	
LINE COUNT:	1478	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides novel forms of atorvastatin designated Forms VI, VIII, IX, X, XI and XII and novel processes for their preparation as well as processes for preparing atorvastatin Forms I, 'II, IV, V and amorphous atorvastatin.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 3 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2005:93432 USPATFULL

TITLE: Modulators of LXR

INVENTOR(S) : Bayne, Christopher D., San Diego, CA, UNITED STATES  
Johnson, Alan T., Poway, CA, UNITED STATES  
Lu, Shao-Po, San Diego, CA, UNITED STATES  
Mohan, Raju, Encinitas, CA, UNITED STATES  
Nyman, Michael C., San Diego, CA, UNITED STATES  
Schweiger, Edwin J., San Diego, CA, UNITED STATES  
Stevens, William C. JR., San Diego, CA, UNITED STATES  
Wang, Haixia, San Diego, CA, UNITED STATES  
Xie, Yinong, San Diego, CA, UNITED STATES  
PATENT ASSIGNEE(S) : X-CEPT Therapeutics, Inc., San Diego, CA, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005080111	A1	20050414
APPLICATION INFO.:	US 2004-899458	A1	20040724 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2002-327813, filed on 20 Dec 2002, PENDING		

NUMBER	DATE
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PRIORITY INFORMATION: US 2001-342707P 20011221 (60)  
DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH  
AVENUE, SUITE 6300, SEATTLE, WA, 98104-7092, US  
NUMBER OF CLAIMS: 89  
EXEMPLARY CLAIM: 1  
LINE COUNT: 8683  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB Compounds of the invention, such as compounds of formula (I):  
##STR1##

where n, m, A, B, R.sup.1, R.sup.2, R.sup.3, R.sup.4 and R.sup.5 are defined  
herein, are useful as modulators of the activity of liver X receptors.  
**Pharmaceutical** compositions containing the compounds and methods  
of using the compounds are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 4 OF 19 USPATFULL on STN  
ACCESSION NUMBER: 2005:44274 USPATFULL  
TITLE: Dosage forms of cholesteryl ester transfer protein  
inhibitors and HMG-CoA reductase inhibitors  
INVENTOR(S): Curatolo, William J., Niantic, CT, UNITED STATES  
Friesen, Dwayne T., Bend, OR, UNITED STATES  
Sutton, Steven C., Niantic, CT, UNITED STATES  
PATENT ASSIGNEE(S): Pfizer Inc (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005038007	A1	20050217
APPLICATION INFO.:	US 2004-903433	A1	20040730 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-492407P	20030804 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	PFIZER INC., PATENT DEPARTMENT, MS8260-1611, EASTERN POINT ROAD, GROTON, CT, 06340	
NUMBER OF CLAIMS:	37	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	6 Drawing Page(s)	
LINE COUNT:	7303	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB A dosage form comprises a cholesteryl ester transfer protein inhibitor  
in a solubility-improved form and an HMG-CoA reductase inhibitor,  
wherein the dosage form provides immediate release of the HMG-CoA  
reductase inhibitor and controlled release of the cholesteryl ester  
transfer protein inhibitor.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 5 OF 19 USPATFULL on STN  
ACCESSION NUMBER: 2005:31542 USPATFULL  
TITLE: Methods for treating inflammation and  
inflammation-associated diseases with a statin and  
ether

INVENTOR(S): Ghazzi, Maha, Ann Arbor, MI, UNITED STATES  
Hartman, Daniel L., Brighton, MI, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005026979	A1	20050203
APPLICATION INFO.:	US 2004-872023	A1	20040618 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-492076P	20030731 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	WARNER-LAMBERT COMPANY, 2800 PLYMOUTH RD, ANN ARBOR, MI, 48105	
NUMBER OF CLAIMS:	16	
EXEMPLARY CLAIM:	1	
LINE COUNT:	1842	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Disclosed herein are methods for treating and preventing inflammation and inflammation-associated diseases by co-administering to a patient in need thereof a dialkyl ether, substituted alkyl, substituted aryl-alkyl, substituted dialkyl thioether, substituted dialkyl ketone, substituted-alkyl, or a **pharmaceutically** acceptable salt of said dialkyl ether, substituted alkyl, substituted alkyl-alkyl, substituted dialkyl thioether, substituted dialkyl ketone, or substituted-alkyl, and a statin, or a **pharmaceutically** acceptable salt of said statin.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 6 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2005:5100 USPATFULL  
TITLE: Novel crystal forms of atorvastatin hemi-calcium and processes for their preparation as well as novel processes for preparing other forms  
INVENTOR(S): Aronhime, Judith, Rehovot, ISRAEL  
Lidor-Hadas, Ramy, Kfar Saba, ISRAEL  
Niddam, Valerie, Even-Yeouda, ISRAEL  
Lifshitz, Revital, Herzlia, ISRAEL  
Wizel, Shlomit, Petah Tiqva, ISRAEL

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005004206	A1	20050106
APPLICATION INFO.:	US 2004-901845	A1	20040728 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2001-997126, filed on 29 Nov 2001, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-250072P	20001130 (60)
	US 2001-267897P	20010209 (60)
	US 2001-281872P	20010405 (60)
	US 2001-312144P	20010813 (60)
	US 2001-326529P	20011001 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	KENYON & KENYON, ONE BROADWAY, NEW YORK, NY, 10004	

NUMBER OF CLAIMS: 19  
EXEMPLARY CLAIM: CLM-1-146  
NUMBER OF DRAWINGS: 13 Drawing Page(s)  
LINE COUNT: 1189

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides novel forms of atorvastatin designated Forms VI, VIII, IX, X, XI and XII and novel processes for their preparation as well as processes for preparing atorvastatin Forms I, II, IV, V and amorphous atorvastatin.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 7 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2004:261945 USPATFULL

TITLE: Isoquinolinone derivatives and their use as therapeutic agents

INVENTOR(S): Johnson, Alan T., Poway, CA, UNITED STATES

Kaneko, Satoru, Yokohama-shi, JAPAN

Mohan, Raju, Encinitas, CA, UNITED STATES

Oda, Kozo, Saitama-shi, JAPAN

Schweiger, Edwin J., San Diego, CA, UNITED STATES

PATENT ASSIGNEE(S): X-Ceptor Therapeutics Inc., San Diego, CA (U.S. corporation)

Sankyo Company, Limited, Tokyo, JAPAN (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004204447	A1	20041014
APPLICATION INFO.:	US 2003-738964	A1	20031217 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-435851P	20021220 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SEED INTELLECTUAL PROPERTY LAW GROUP PLLC, 701 FIFTH AVENUE, SUITE 6300, SEATTLE, WA, 98104-7092	
NUMBER OF CLAIMS:	34	
EXEMPLARY CLAIM:	1	
LINE COUNT:	6858	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Compounds of formula (I): ##STR1##

wherein n, R.sup.1, R.sup.2, R.sup.3 and R.sup.7 are disclosed herein, are useful in treating disease-states associated with nuclear receptor activity. **Pharmaceutical** compositions comprising and methods of using said compounds are also disclosed herein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 8 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2004:253873 USPATFULL

TITLE: Dosage forms comprising a CETP inhibitors and an HMG-CoA reductase inhibitor

INVENTOR(S): Friesen, Dwayne T., Bend, OR, UNITED STATES

Lyon, David K., Bend, OR, UNITED STATES

Lorenz, Douglas A., Bend, OR, UNITED STATES

Hancock, Bruno C., North Stonington, CT, UNITED STATES

PATENT ASSIGNEE(S): McDermott, Timothy J., Salem, CT, UNITED STATES  
Shanker, Ravi M., Groton, CT, UNITED STATES  
Pfizer Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004197398	A1	20041007
APPLICATION INFO.:	US 2003-739567	A1	20031218 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-435345P	20021220 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	PFIZER INC., PATENT DEPARTMENT, MS8260-1611, EASTERN POINT ROAD, GROTON, CT, 06340	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
LINE COUNT:	7024	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A dosage form comprises (1) a solid amorphous dispersion comprising a cholesterol ester transfer protein inhibitor and an acidic concentration-enhancing polymer and (2) an HMG-CoA reductase inhibitor. The solid amorphous dispersion and the HMG-CoA reductase inhibitor are combined in the dosage form so that the solid amorphous dispersion and the HMG-CoA reductase inhibitor are substantially separate from one another in the dosage form.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 9 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2004:239297 USPATFULL  
TITLE: Dosage forms comprising a CETP inhibitor and an HMG-CoA reductase inhibitor  
INVENTOR(S): Friesen, Dwayne T., Bend, OR, UNITED STATES  
Lyon, David K., Bend, OR, UNITED STATES  
Lorenz, Douglas A., Bend, OR, UNITED STATES  
Ketner, Rodney J., Bend, OR, UNITED STATES  
Hancock, Bruno C., North Stonington, CT, UNITED STATES  
McDermott, Timothy J., Salem, CT, UNITED STATES  
Shanker, Ravi M., Groton, CT, UNITED STATES  
PATENT ASSIGNEE(S): Pfizer Inc (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004185102	A1	20040923
APPLICATION INFO.:	US 2003-739750	A1	20031218 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-435298P	20021220 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	PFIZER INC., PATENT DEPARTMENT, MS8260-1611, EASTERN POINT ROAD, GROTON, CT, 06340	
NUMBER OF CLAIMS:	53	
EXEMPLARY CLAIM:	1	
LINE COUNT:	6727	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A dosage form comprises (1) a solid amorphous dispersion comprising a cholesteryl ester transfer protein inhibitor and a neutral or neutralized acidic polymer and (2) an HMG-CoA reductase inhibitor. The dosage form provides improved chemical stability of the HMG-CoA reductase inhibitor.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 10 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2004:172607 USPATFULL  
TITLE: Compositions of cholesteryl ester transfer protein inhibitors and HMG-CoA reductase inhibitors  
INVENTOR(S): Babcock, Walter C., Bend, OR, UNITED STATES  
Friesen, Dwayne T., Bend, OR, UNITED STATES  
Shankar, Ravi M., Groton, CT, UNITED STATES  
Smithey, Daniel T., Bend, OR, UNITED STATES  
PATENT ASSIGNEE(S): Pfizer Inc (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004132771	A1	20040708
APPLICATION INFO.:	US 2003-678145	A1	20031006 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-435328P	20021220 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	PFIZER INC., PATENT DEPARTMENT, MS8260-1611, EASTERN POINT ROAD, GROTON, CT, 06340	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
LINE COUNT:	6402	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A composition comprises (1) a solid amorphous adsorbate comprising a cholesteryl ester transfer protein (CETP) inhibitor and a substrate; and (2) an HMG-CoA reductase inhibitor. The solid amorphous adsorbate provides concentration enhancement of the CETP inhibitor relative to a control composition consisting essentially of the unadsorbed CETP inhibitor alone, resulting in improved bioavailability.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 11 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2004:139494 USPATFULL  
TITLE: Crystalline form  
INVENTOR(S): Blatter, Fritz, Reinach, SWITZERLAND  
Szelagiewicz, Martin, Munchenstein, SWITZERLAND  
Van Der Schaaf, Paul Adriaan, Allschwil, SWITZERLAND

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004106670	A1	20040603
APPLICATION INFO.:	US 2002-323241	A1	20021218 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	EP 2002-406037	20021128
DOCUMENT TYPE:	Utility	



FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: KENYON & KENYON, ONE BROADWAY, NEW YORK, NY, 10004  
NUMBER OF CLAIMS: 21  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 1 Drawing Page(s)  
LINE COUNT: 315

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to the novel **polymorphic** Form F of **Atorvastatin calcium**, processes for the preparation thereof and **pharmaceutical** compositions comprising this crystalline form.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 12 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2004:70965 USPATFULL

TITLE: Crystalline forms of [R-(R\*,R\*)]-2-(4-fluorophenyl)-beta,delta-dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid calcium salt (2:1)

INVENTOR(S): Byrn, Stephen Robert, West Lafayette, IN, UNITED STATES  
Coates, David Andrew, West Lafayette, IN, UNITED STATES  
Gushurst, Karen Sue, Lafayette, IN, UNITED STATES  
Krzyszaniak, Joseph Francis, Pawcatuck, CT, UNITED STATES  
Li, Zheng Jane, Quaker Hill, CT, UNITED STATES  
Morrison, Henry Grant, II, Lafayette, IN, UNITED STATES  
Park, Aeri, West Lafayette, IN, UNITED STATES  
Vlahova, Petinka Ivanova, Lafayette, IN, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004054193	A1	20040318
APPLICATION INFO.:	US 2003-456046	A1	20030606 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2002-184669, filed on 28 Jun 2002, GRANTED, Pat. No. US 6605729		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-302049P	20010629 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	WARNER-LAMBERT COMPANY, 2800 PLYMOUTH RD, ANN ARBOR, MI, 48105	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	35 Drawing Page(s)	
LINE COUNT:	1360	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel crystalline forms of [R-(R\*,R\*)]-2-(4-fluorophenyl)- $\beta$ , $\delta$ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid hemi calcium salt designated **Form V**, Form VI, Form VII, Form VIII, Form IX, Form X, Form XI, Form XII, Form XIII, Form XIV, Form XV, Form XVI, Form XVII, Form XVIII, and Form XIX are characterized by their **x-ray** powder **diffraction**, solid-state **NMR**, and/or Raman spectroscopy are described, as well as methods for the preparation and **pharmaceutical** composition of the same, which are useful as agents for treating hyperlipidemia, hypercholesterolemia, osteoporosis,

and Alzheimer's disease.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 13 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2003:301053 USPATFULL

TITLE: Novel crystal forms of atorvastatin hemi-calcium and processes for their preparation as well as novel processes for preparing other forms

INVENTOR(S): Tessler, Limor, Natanya, ISRAEL  
Aronhime, Judith, Rehovot, ISRAEL  
Lifshitz-Liron, Revital, Herzlia, ISRAEL  
Maidan-Hanoch, Dalia, Kfar Yona, ISRAEL  
Hasson, Nir, Meitar, ISRAEL

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003212279	A1	20031113
APPLICATION INFO.:	US 2003-370897	A1	20030219 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2001-997126, filed on 29 Nov 2001, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-250072P	20001130 (60)
	US 2001-267897P	20010209 (60)
	US 2001-281872P	20010405 (60)
	US 2001-312144P	20010813 (60)
	US 2001-326529P	20011001 (60)

DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: KENYON & KENYON, ONE BROADWAY, NEW YORK, NY, 10004  
NUMBER OF CLAIMS: 71  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 17 Drawing Page(s)  
LINE COUNT: 1776

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides novel forms of atorvastatin designated Forms VI, VII, VIII, IX, IXa, X, XI, XII, XIV, XVI and XVII and novel processes for their preparation as well as processes for preparing atorvastatin Forms I, II, IV, V and amorphous atorvastatin.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 14 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2003:243900 USPATFULL

TITLE: **Pharmaceutical** compositions containing polymer and drug assemblies

INVENTOR(S): Babcock, Walter C., Bend, OR, UNITED STATES  
Crew, Marshall D., Bend, OR, UNITED STATES  
Friesen, Dwayne T., Bend, OR, UNITED STATES  
Rabenstein, Mark D., Bend, OR, UNITED STATES  
Shanker, Ravi M., Groton, CT, UNITED STATES  
Smithey, Daniel T., Bend, OR, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003170309	A1	20030911
APPLICATION INFO.:	US 2002-173945	A1	20020617 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-300259P	20010622 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	PFIZER INC., PATENT DEPARTMENT, MS8260-1611, EASTERN POINT ROAD, GROTON, CT, 06340	
NUMBER OF CLAIMS:	67	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	5 Drawing Page(s)	
LINE COUNT:	7724	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	Solutions containing polymer/drug assemblies of a low-solubility drug and polymer are disclosed. In addition, solid aggregated polymer/drug assemblies are disclosed comprising a low-solubility drug and polymer.	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 15 OF 19 USPATFULL on STN

ACCESSION NUMBER:	2003:216235	USPATFULL
TITLE:	Crystalline forms of [R-(R*,R*)]-2-(4-fluorophenyl)- $\beta$ , $\delta$ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid calcium salt (2:1)	
INVENTOR(S):	Byrn, Stephen Robert, West Lafayette, IN, United States Coates, David Andrew, West Lafayette, IN, United States Gushurst, Karen Sue, Lafayette, IN, United States Krzyszaniak, Joseph Francis, Pawcatuck, CT, United States Li, Zheng Jane, Quaker Hill, CT, United States Morrison, II, Henry Grant, Lafayette, IN, United States Park, Aeri, West Lafayette, IN, United States Vlahova, Petinka Ivanova, Lafayette, IN, United States	
PATENT ASSIGNEE(S):	Warner-Lambert Company, Morris Plains, NJ, United States (U.S. corporation)	

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6605729	B1	20030812
APPLICATION INFO.:	US 2002-184669		20020628 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-302049P	20010629 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Powers, Fiona T.	
LEGAL REPRESENTATIVE:	Tinney, Francis J.	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	35 Drawing Figure(s); 35 Drawing Page(s)	
LINE COUNT:	1123	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	Novel crystalline forms of [R-(R*,R*)]-2-(4-fluorophenyl)- $\beta$ , $\delta$ -dihydroxy-5-(1-methylethyl)-3-phenyl-4-[(phenylamino)carbonyl]-1H-pyrrole-1-heptanoic acid hemi calcium salt designated <b>Form V</b> , <b>Form VI</b> , <b>Form VII</b> , <b>Form VIII</b> , <b>Form IX</b> , <b>Form X</b> , <b>Form XI</b> , <b>Form XII</b> , <b>Form XIII</b> , <b>Form XIV</b> , <b>Form XV</b> , <b>Form XVI</b> , <b>Form XVII</b> , <b>Form XVIII</b> , and	

Form XIX are characterized by their **X-ray** powder **diffraction**, solid-state **NMR**, and/or Raman spectroscopy are described, as well as methods for the preparation and **pharmaceutical** composition of the same, which are useful as agents for treating hyperlipidemia, hypercholesterolemia, osteoporosis, and Alzheimer's disease.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 16 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2003:105890 USPATFULL

TITLE: **Pharmaceutical** compositions comprising drug and concentration-enhancing polymers

INVENTOR(S): Curatolo, William J., Niantic, CT, UNITED STATES

Friesen, Dwayne T., Bend, OR, UNITED STATES

PATENT ASSIGNEE(S): Pfizer Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003072801	A1	20030417
APPLICATION INFO.:	US 2002-176462	A1	20020620 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-300314P	20010622 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	PFIZER INC., PATENT DEPARTMENT, MS8260-1611, EASTERN POINT ROAD, GROTON, CT, 06340	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
LINE COUNT:	7618	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A solubility-improved drug form is combined with a concentration-enhancing polymer in a sufficient amount so that the combination provides substantially enhanced drug concentration in a use environment relative to a control comprising the same amount of the same drug form without the concentration-enhancing polymer.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 17 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2003:78118 USPATFULL

TITLE: **Pharmaceutical** compositions of drugs and neutralized acidic polymers

INVENTOR(S): Crew, Marshall D., Bend, OR, UNITED STATES  
Friesen, Dwayne T., Bend, OR, UNITED STATES  
Ketner, Rodney J., Bend, OR, UNITED STATES  
Shanker, Ravi M., Groton, CT, UNITED STATES  
West, James B., Bend, OR, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003054038	A1	20030320
APPLICATION INFO.:	US 2002-175566	A1	20020617 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-300256P	20010622 (60)

DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: PFIZER INC., PATENT DEPARTMENT, MS8260-1611, EASTERN  
POINT ROAD, GROTON, CT, 06340  
NUMBER OF CLAIMS: 84  
EXEMPLARY CLAIM: 1  
LINE COUNT: 7610  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB **Pharmaceutical** compositions comprised of low-solubility and/or  
acid-sensitive drugs and neutralized acidic polymers are disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 18 OF 19 USPATFULL on STN  
ACCESSION NUMBER: 2002:323209 USPATFULL  
TITLE: Novel crystal forms of atorvastatin hemi-calcium and  
processes for their preparation as well as novel  
processes for preparing other forms  
INVENTOR(S): Aronhime, Judith, Rehovot, ISRAEL  
Lidor-Hadas, Ramy, Kfar Saba, ISRAEL  
Niddam, Valerie, Even-Yeouda, ISRAEL  
Lifshitz, Revital, Herzlia, ISRAEL  
Ishai, Eti, Netanya, ISRAEL  
Sambursky, Guy, Hofit, ISRAEL

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002183378	A1	20021205
APPLICATION INFO.:	US 2001-997126	A1	20011129 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-250072P	20001130 (60)
	US 2001-267897P	20010209 (60)
	US 2001-281872P	20010405 (60)
	US 2001-312144P	20010813 (60)
	US 2001-326529P	20011001 (60)

DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: KENYON & KENYON, ONE BROADWAY, NEW YORK, NY, 10004  
NUMBER OF CLAIMS: 146  
EXEMPLARY CLAIM: 1  
NUMBER OF DRAWINGS: 13 Drawing Page(s)  
LINE COUNT: 1629  
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
AB The present invention provides novel forms of atorvastatin designated  
Forms VI, VIII, IX, X, XI and XII and novel processes for their  
preparation as well as processes for preparing atorvastatin Forms I, II,  
IV, V and amorphous atorvastatin.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L11 ANSWER 19 OF 19 USPATFULL on STN  
ACCESSION NUMBER: 2002:214320 USPATFULL  
TITLE: Atorvastatin hemi-calcium form VII  
INVENTOR(S): Aronhime, Judith, Rehovot, ISRAEL  
Lidor-Hadas, Ramy, Kfar Saba, ISRAEL  
Niddam, Valerie, Even-Yeouda, ISRAEL  
Lifshitz, Revital, Herzlia, ISRAEL

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002115709	A1	20020822
	US 6605636	B2	20030812
APPLICATION INFO.:	US 2001-992746	A1	20011105 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-245897P	20001103 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	KENYON & KENYON, ONE BROADWAY, NEW YORK, NY, 10004	
NUMBER OF CLAIMS:	17	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	1 Drawing Page(s)	
LINE COUNT:	337	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a novel form of atorvastatin hemi-calcium designated Form VII and novel processes for its preparation whereby another crystalline form of atorvastatin hemi-calcium is suspended in ethanol, preferably absolute ethanol, and is converted to the new form, which is then isolated. The present invention further provides a method of reducing the plasma low density lipoprotein level in patients suffering from or susceptible to hypercholesterolemia and compositions and dosage forms for practicing the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.